

## HG Unit 2 Assignment Sheet

## Parallel, Perpendicular and Proof

Day	Date	Unit 2 Topics	Homework
1	Fri., 2/3	Review of Linear Equations: slope, x- and y- intercepts, graphing lines	Solving Equations Worksheet
2	Mon., 2/6	3-6 -Review Day 1 -Writing equations of lines -Writing equations of a line parallel or perpendicular to a given line	<b>p. 155-156</b> *need graph paper* #2, 18, 24, 26, 30, 35, 36 <b>p. 161-163</b> #2, 5, 6, 12, 14, 16, 20, 22, 26, 28, 44
3	Tues., 2/7	Intro to coordinate proofs (squares, rectangles and parallelograms)	<b>p. 163</b> #32, 34, 37, 38, 47, 48 Worksheet
4	Wed., 2/8 Early Release	Review <b>Mini Quiz #1</b>	
5	Thurs., 2/9	Algebraic Properties and Preparing for Proofs	<b>p. 91-94</b> #3-24, 27, 30
6	Fri., 2/10	More practice with proofs Proof Puzzles	Worksheet
7	Mon., 2/13	<b>Mini Quiz #2</b> 3-1 Parallel lines and angles formed by them Proving angles congruent	<b>p. 118-121</b> #10-17, 23-26, 30, 32
8	Tues., 2/14	3-2 Proving Lines Parallel - Two Column Proofs - Flow Proofs	<b>p. 125-128</b> #2-22 E; 28-34 E; 48
9	Wed., 2/15	Review of proofs <b><u>Constructions:</u></b> <b>Parallel Lines</b>	<b>Chapter Test</b> <b>p. 108</b> #10-14 <b>p. 176</b> #3-14, 19, 20, 24-27 (leave # 20 in SIF)
10	Thurs., 2/16	Review and Practice Test	Complete Practice Test and STUDY!
11	Fri., 2/17	<b>Unit 2 Test</b>	

## Vocabulary

alternate interior angles  
corresponding angles  
flow proof  
point-slope form  
rectangle  
same-side interior angles

slope-intercept form  
square  
standard form for a linear equation  
transversal  
two-column proof

## Postulates & Theorems

Corresponding Angles Postulate:

If a transversal intersects two parallel lines, then corresponding angles are congruent.

Alternate Interior Angles Theorem:

If a transversal intersects two parallel lines, then alternate interior angles are congruent.

Same-side Interior Angles Theorem:

If a transversal intersects two parallel lines, then same-side interior angles are supplementary.

Converse of the Corresponding Angles Postulate:

If two lines and a transversal form corresponding angles that are congruent, then the lines are parallel.

Converse of the Alternate Interior Angles Theorem:

If two lines and a transversal form alternate interior angles that are congruent, then the lines are parallel.

Converse of the Same-side Interior Angles Theorem:

If two lines and a transversal form same-side interior angles that are supplementary, then the lines are parallel.

Theorem: If two lines are parallel to the same line, then they are parallel to each other.

Theorem: In a plane, if two lines are perpendicular to the same line, then they are parallel to each other.

Triangle Angle-Sum Theorem: The sum of the measures of the angles of a triangle is  $180^\circ$ .

Parallel Postulates: Through a point not on a line, there is one and only one line parallel to the given line.

Slopes of Parallel Lines: If two nonvertical lines are parallel, then their slopes are equal. If the slope of two distinct nonvertical lines are equal, then the lines are parallel. Any two vertical lines are parallel.

Slopes of perpendicular Lines: If two nonvertical lines are perpendicular, the product of their slopes is  $-1$ . If the slopes of two distinct nonvertical lines is  $-1$ , then the lines are perpendicular. Any vertical and horizontal lines are perpendicular.